

NOTES ON A COLLECTION OF SNAKES
FROM PERSIA.

BY

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Our Society is indebted to Lieutenant A. T. Wilson (32nd Sikh Pioneers) for a most valuable and interesting donation of snakes collected by him in Persia.

The collection includes 50 specimens, comprising 15 distinct species, no less than 3 of which are new to science. In three other instances the habitat previously recorded has been considerably extended, viz., *Contia decemlineata*, *C. coronella*, and *Zamenis gemonensis*. Mr. Millard has very kindly given me the privilege of classifying this collection, and making the following remarks upon the specimens included.

Lieut. Wilson says :

“The snakes sent to the Bombay Nat. Hist. Society for identification were collected at a place known as Maidan Mihaftan 30 m. E. of Shushtar in S. W. Persia (see sheet 72. S. W. Asia. 8 m. = 1”). It is a typical spot in the narrow belt of low hills which intervene between the Zagros mountains and the vast flat plains of Persian Mesopotamia. The zoological types in this belt are distinct from those of Persian Mesopotamia, and closely allied to those of the Zagros mountains. Practically treeless, with a total rainfall of 7”, all of which falls between November and March and destitute of water except in a few favoured spots, it is deserted by man in summer, the nomad tribes moving to their summer quarters in the Zagros at the end of March. Large birds are rare, as also is the mongoose : field mice and locusts are extremely common—a state of affairs favourable to reptiles. From May to July snakes abound everywhere, but are seldom seen after July.

The district is extremely hot in summer, the average maximum shade temperature for June, July and August being over 117°.

Family—TYPHLOPIDÆ.

Typhlops wilsoni, spec. nov.

A single specimen.

Description.—*Costals.*—2 heads lengths from head 24, midbody 24, 2 heads lengths before anus 22. *Rostral.*—About one-third the breadth of the head, not reaching as far back as the eyes, in contact with the internasal. *Nasals.*—Just fail to meet behind rostral. The nostril is lateral; an upper suture passes towards but fails to meet the rostral, the lower suture passes to the 2nd labial. *Præocular.*—Touches the 2nd and 3rd labials, and the subocular. *Ocular.*—Separated from labials by a subocular. The eyes are distinct, and their diameter about half the ocular shield. *Supraoculars.*—Just fail to meet. The *internasal*, *frontal*, and *supraocular* shields subequal, and smaller than the *occipitals*, and *parietals* which are subequal. *Labials.*—Four. Snout rounded. Length 1 foot $1\frac{1}{2}$ inches, *i.e.*, 38 times the diameter at midbody. Tail with a single small spine directed downwards, and slightly backwards. *Colour.*—Uniform dirty brown.

I attach Lieutenant Wilson's name to this interesting addition to our Asian ophifauna.

Family—GLAUCONIIDÆ.

Glauconia macrorhynchus.

A single specimen of this little known snake.

Reference to Mr. Boulenger's Catalogue (Vol. I, p. 62) shows that the habitat "Euphrates" was dubious. This specimen now clears up any doubt as to this locality. It agrees with Mr. Boulenger's description excepting in the width relative to the length. I find this taken laterally is contained $81\frac{1}{2}$ times in the total length (Blgr. 113 times). In case there should be any confusion in identification I attach another description.

Rostral.—Very much broader than one-third the width of the head; reaching back to a line connecting the anterior edges of the eyes; in contact with the frontal behind. *Nasals.*—Reaching to the labial margin. Nostrils lateral; an upper suture passes from them to the rostral; a lower to the 1st labial. *Ocular* descends to the lip between the 1st and 2nd labials. Eye very black, about half the ocular shields in diameter. *Frontal* and *Supraoculars.*—Subequal. *Postoculars.*—Twice as broad as the height of the 2nd labial.

Labials.—Two ; the first between the nasal and the ocular, the second behind the ocular. *Costals* in 14 rows.

Snout hooked, its inferior præoral surface concave. Length $9\frac{1}{8}$ inches, *i.e.*, $81\frac{1}{2}$ times the length of the lateral diameter in midbody. Body very distinctly compressed. *Colour*—Pinkish anteriorly, merging to a pale uniform greyish.

Family—BOIDÆ.

Eryx jaculus.

Six specimens.

Agree with Boulenger's description, but there are one or two additional points I consider of importance I would like to call attention to. As in others of the Family I know the ventrals begin in the throat at an unusual distance behind the mental groove. The last two ventrals are narrower than the preceding. The last costal row is much enlarged and just one-half the breadth of the ventrals in mid-body, a feature that I expect will prove constant in all the species of the Family, and also found in the single species of the Family *Xenopeltidae*. The nasals touch the 1st and 2nd supralabials, a suture running from the nostril to the 2nd. *Supralabials*.—The first three, four, or five are high, the rest divided, their lower parts decreasing in size from before backwards. *Infralabials*.—The first four or five are entire and broad, the rest divided.

No. of specimen.	COSTALS.			Ventrals.	Anal.	SUBCAUDALS.
	2 heads lengths behind head.	Midbody.	2 heads lengths before vent.			
1	47	52	35	198	1	27. The 18th to 22 divided, rest entire.
2	44	50	35	195	1	30. All entire.
3	47	52	39	197	1	26. All entire.
4	45	51	37	190	1	28. 13th, 14th and 15th divided, rest entire.
5	48	54	39	199	1	25. 4th and last 2 divided rest entire.
6	48	52	37	191	1	26. 6th and 7th divided, rest entire.

Family—COLUBRIDÆ.

Series A.—AGLYPHA.

Sub-family—COLUBRINÆ.

Tropidonotus tessellatus.

Two specimens.

No. of specimen.	COSTALS.			Ventrals.	Anal.	Subcaudals	Loreals.	Præoculars.	Postoculars.	Temporals.	Labials.	Lab. touching eye.
	2 heads lengths behind head.	Midbody.	2 heads lengths before vent.									
1	19	19	17	176	2	69	1	3	4	1	8	4th
2	19	19	17	170	2	?	1	3	4	1	8 right 8 left	3rd right 4 left

The lowest præocular is minute. As in other *Tropidonoti* the reduction of the costal rows from 19 to 17 is effected by a coalescence of the 3rd and 4th rows above the ventrals. Keels are absent in the ultimate row, only in about the anterior two-thirds or so of the body. Apical pits are very obscurely visible in pairs, at any rate anteriorly. The nasal is semidivided, a suture running from the nostril to the 1st labial.

Zamenis rhodorhachis.

Four specimens. One is a very beautiful example of variety *typica*, with a very bright pink vertebral stripe. The others conform to variety *ladacensis*.

No. of specimen.	COSTALS.			Ventrals.	Anal.	Subcaudals.	REMARKS.
	2 heads lengths behind head.	Midbody.	2 heads lengths before vent.				
1	19	19	13	238	2	?	Var. <i>typica</i> .
2	19	19	13	226	2	137	" <i>ladacensis</i> .
3	19	19	13	232	2	?	do.
4	19	19	13	241	2	135	do.

The absorption of the costal rows is interesting. The two first steps from 19 to 17, and from 17 to 15 occur close together so that they may be reversed but usually the two rows next to the vertebral, *i.e.*, the 8th and 9th blend first and then the 3rd and 4th or 4th and 5th rows above the ventrals. From 15 to 13 the two rows next the vertebral again blend, *i.e.*, the 6th and 7th above the ventrals.

I noticed in specimen No. 2 a faint indication anteriorly of a pinkish vertebral stripe so that it seems probable intermediate forms will be met with to connect the two colour varieties. The 4th supralabial is divided in both forms, and I think it would be more correct to say that the 4th, 5th and 6th usually touch the eye, not the 5th and 6th only. (*vide* Boulenger's Catalogue Vol. I., p. 398). The upper part of the 4th is referred to by Mr. Boulenger as a subocular, an opinion I am opposed to. The origin of this small shield appears to me obvious in this and some other species of *Zamenis* and in some *Simotes* and analogy dictates its origin from the 4th supralabial.

Zamenis microlepis.

Two specimens.

COSTALS.			Ventrals.	Anal.	Subcaudals.	Supralabials.	REMARKS.
2 heads lengths behind head.	Midbody.	2 heads lengths before vent.					
38 ?	45	29	258	1	109	{ 16 Right. 17 Left. 16	
35	41	28	244?	1	97		

The ultimate costal row is relatively very large, being nearly three times as broad as the median rows and the length of each scale is about twice that of the scales in the penultimate row. It is also very peculiar in that each scale touches three above instead of two which is the almost invariable rule in snakes. The parietals are peculiar in that they touch no postocular. The supralabials are peculiar in that the first two and the last two or three are entire, and all the rest divided. The colour is pale blue grey with well defined dun-black subrectangular marks. A median series passing as bars across

the back, are broader than the interspaces. Costally 3 or 4 series of quincunciately arranged spots decreasing in size from above downwards pass along the whole body, the uppermost alternating with the vertebral series.

Zamenis gemonensis.

A single specimen from Gotwand, North of Shushtar, S. Persia, accords with variety *asianus* (Boettger). This variety has not hitherto been recorded further South than Palestine.

COSTALS.			Ventrals.	Anal.	Subcaudals.	Preoculars.	Postoculars.	Temporals.	Supralabials.	Supralabials touching eye.
Two heads lengths behind head.	Midbody.	Two heads lengths before vent.								
17	19	15	198	2	?	1	2	3	8	3rd, 4th and 15th.

The 3rd supralabial is divided, the upper part touching the eye.

It is blackish with rather indistinct median-rose-coloured streaks on each scale, more noticeable in the hinder part of the body. The belly is blackish-plumbeous, heavily mottled with rose-pink. The posterior borders of the supralabials are black.

Contia decemlineata.

Ten specimens, the longest (*viz.* No. 6) measuring 1 foot 8½ inches, the tail 5½ inches.

No. of specimen.	COSTALS.			Ventrals.	Anal.	Subcaudals.	Loreal.	Preoculars.	Postoculars.	Temporals.	Labials.	Labials touching eye.
	2 heads lengths after head.	Midbody.	2 heads lengths before vent.									
1	17	17	15	158	2	91	1	1	2	1	7	3rd and 4th.
2	17	17	15	159	2	86?	1	1	2	1	7	3rd and 4th.
3	17	17	15	169	2	78	0	1	2	1	7	3rd and 4th.
4	17	17	15	169	2	75	1	1	2	1	7	3rd and 4th.
5	17	17	15	149	2	86	1	1	2	1	7	3rd and 4th.
6	17	17	15	174	2	78	1	1	2	1	7	3rd and 4th.
7	17	17	15	158	2	85	1	1	2	1	7	3rd and 4th.
8	17	17	15	169	2	68	1	1	2	1	7	3rd and 4th.
9	17	17	15	152	2	91	1	1	2	1	7	3rd and 4th.
10	7	7	7	171	2	81	1	1	2	1	7	3rd and 4th.

* The loreal is confluent with the nasal on both sides.

The reduction of rows from 17 to 15 is occasioned by a confluence of the 3rd and 4th rows above the ventrals. The largest specimen is nearly uniform brown, but the spots seen in the younger specimens are obscurely visible when scrutinised. The younger specimens are specked with small blackish spots which show a great tendency to occur in pairs or triplets side by side. In the posterior part of the body and tail these spots become rearranged in longitudinal interrupted lines. Hitherto I believe this species has been known from Syria only, but there is nothing surprising in the extension of habitat to Persia as the Fauna of Syria is essentially that of the valley of the Euphrates and Tigris.

Contia persica.

Five specimens.

No. of specimen.	COSTALS.			Ventrals.	Anal.	Subcaudals.	Preoculars.	Postoculars.	Temporals.	Labials.	Lab. touching eye.
	2 heads lengths after head.	Midbody.	2 heads lengths before vent.								
1	15	15	15	202 ?	2	66	1	1	1	7	3rd and 4th.
2	15	15	15	213	2	63	1	1	1	7	3rd and 4th.
3	15	15	13	201	2	78	1	1	1	7	3rd and 4th.
4	15	15	13	200	2	67	1	1	1	7	3rd and 4th.
5	15	15	15	20	2	64	1	1	1	7	3rd and 4th.

In specimens 3 and 4 the reduction of rows from 15 to 13 is brought about by a coalescence of the 3rd and 4th or 4th and 5th rows above the ventrals. The præfrontal owing to the absence of a loreal meets the 2nd supralabial in all the specimens.

In No. 3 there is a black well defined collar, and two narrower less defined bands on the head, one across between the eyes, the other across the middle of the parietals. In the other specimens no such bands can be distinguished but the whole of the head between the limits of these three bands is quite black.

Contia coronella.

Eight specimens, the largest (No. 1) 1 foot 2 inches, tail $2\frac{1}{3}$ inches.

No. of specimens.	COSTALS.			Ventrals.	Anal.	Subcaudals.	Locals.	Preoculars.	Postoculars.	Temporals.	Labials.	Lab. touching eye.
	2 heads lengths after head.	Midbody.	2 heads lengths before vent.									
1	15	15	13	151	2	37	1	1	2	1	7	3rd and 4th.
2	15	15	13	154	2	34?	1	1	2	1	7	3rd and 4th.
3	15	15	13	134	2	44	1	1	2	1	7	3rd and 4th.
4	15	15	13	134	2	45	1	1	2	1	7	3rd and 4th.
5	15	15	13	136	2	43	1	1	2	1	7	3rd and 4th.
6	15	15	13	139	2	49	1	1	2	1	7	3rd and 4th.
7	15	15	13	154	2	39	1	1	2	1	7	3rd and 4th.
8	15	15	13	137	2	..	1	1	2	1	7	3rd and 4th.

The reduction of scales from 15 to 13 is due to a confluence of the 3rd and 4th rows above the ventrals.

The constancy of the costal rows in the genus *Contia* as far as I know it, is such that I cannot help thinking that more than one (possibly three) distinct species are summed up by Mr. Boulenger under the title *coronella* (*vide* Catalogue Vol. II, p. 264). Hitherto it has only been recorded from Syria, but the extension of the habitat to the further limit of the Euphrates-Tigris basin is only in consonance with other forms.

Series B—OPISTHOGLYPHA.

Subfamily—DIPSADOMORPHINÆ.

Tarbophis tessellatus, spec. nov.

A single specimen, in 5 fragments. Length about 18 inches?

Description. *Costals.*—2 heads lengths after head 21, midbody 21, 2 heads lengths before the vent 17. *Absorption.*—From 21 to 19 uncertain; from 19 to 17 the 8th and 9th rows coalesce on the right side. Vertebral not enlarged. Ultimate row enlarged. Keels absent. Apical pits single, and very evident. *Ventrals.*—243, very distinctly angulate. *Anal* entire. *Subcaudals* 75 divided.

Rostral in contact with 6 shields, the naso-rostral sutures longest. *Internasals*.—The suture between the fellows half that between the præfrontal fellows ; two-thirds the internaso-præfrontal suture. *Præfrontals*.—Suture between the fellows greater than the præfronto-frontal sutures ; in contact with internasal, postnasal (very slightly), loreal, præocular, and frontal. *Frontal*.—Touches 8 shields, the fronto-supraocular sutures rather the longest. Length greater than distance to the end of the snout,—subequal to parietals. *Supraoculars*.—Length and breadth about three-quarters that of the frontal. *Nasals* divided, equal to or rather longer than loreal, in contact with the 1st and 2nd supralabials. A suture from the nostril to the 1st supralabial. *Loreal*.—One, touching the eye below the præocular. *Præocular*.—One, touching the frontal. *Postoculars*.—Three. *Temporals*.—Scale-like, three superposed anteriorly. *Supralabials*.—8, the 3rd, 4th and 5th touching the eye, 6th longest. *Posterior sublinguals*.—Three-quarters the anterior, in contact with the 4th and 5th (or 5th?) infralabials; the fellows quite separated. *Infralabials*.—The 5th is the largest of the series, and in contact with three scales behind. The suture between the 1st subequal to that between the anterior sublinguals. *Pupil* vertical. *Colour*.—Greyish with three series of large well defined blackish spots. The median form cross bars, and the lateral alternate as vertical bars passing down as far as the angulation of the ventrals. Belly between angulation of ventrals black, the angulation lightly streaked.

There are 46 cross bars on the body, and they involve about as many scales (2 to 3) in the length of the snake as the intervals. Many of these do not meet their fellows accurately on the spine occasioning oblique, or divided bars. Head neutral tint, the lower half of the supralabials greyish.

Psammophis schokari.

Two specimens.

The costals 2 heads lengths behind head are 17, at midbody 17, and 2 heads lengths before the vent 11. *Absorption* agrees with that of other specimens I have examined. The first two steps from 17 to 15, and from 15 to 13 occur very close together, and may be reversed. The 3rd and 5th rows above the ventrals are absorbed into the rows above or below. From 13 to 11 the 4th is absorbed,

Supralabials.—9, the 5th and 6th touching the eye in both. No. 1, *Ventrals*.—175. *Subcaudals*.—124. No. 2, *Ventrals*.—175. *Subcaudals*.—119.

Family.—VIPERIDÆ.

Sub-family.—VIPERINÆ.

Echis carinatus.

Three specimens.

In No. 1, the costals 2 heads lengths from the head are 25, at midbody 31, and 2 heads lengths before the vent 21. Ventrals and subcaudals 180 and 36.

In No. 2 the costals are 29—32—23, and the ventrals and subcaudals 177 and 32.

In No. 3 I omitted to record any lepidosis.

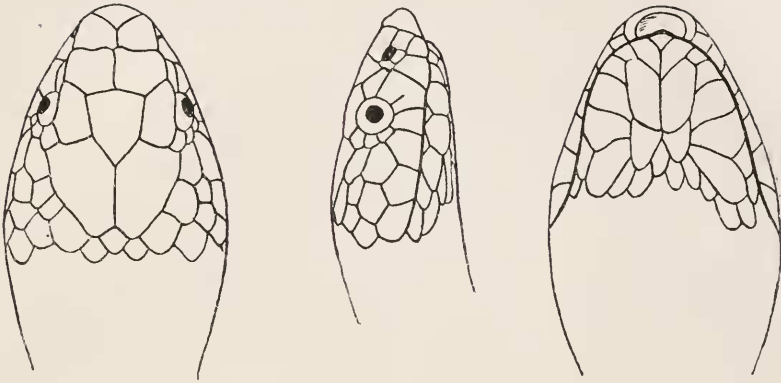
Vipera lebetina.

A somewhat tattered skin of this species. The scales in midbody 25? Ventrals 175. Tail absent. The head was attached to the skin, and the lepidosis typical.

Atractaspis wilsoni, spec. nov.

Two specimens, one very badly damaged about the head, is 2 feet 8½ inches in length, the tail 4 inches.

Description. *Costals*.—2 heads lengths from head 23 (21 in one), in midbody 23, 2 heads lengths before the vent 19. The reduction of rows from 23 to 21 and from 21 to 19 is due to the absorption of the 3rd row above the ventrals into the 2nd or 4th, both steps occurring very close together. Vertebrae not enlarged. Ultimate row enlarged, more than twice the breadth of the median costals. *Keels*.—Very obtuse in the basal half of some median rows posteriorly. *Ventrals* in No. 1, 197; in No. 2, 180. *Anal* divided. *Subcaudals*.—In No. 1, 41, the 1st and 2nd entire. In No. 2, 47, the 1st to 10th and last entire, the rest divide. *Rostral*.—Touches 6 shields, the rostro-internasal sutures as long as the rostro-nasal and rostro-labial taken together. Portion visible above equals its distance to the frontal. *Internasals*.—The suture between the fellows three-quarters that between the præfrontal fellows; about half the internaso-præfrontal sutures. *Præfrontals*.—The suture between the fellows equal to the præfronto-frontal



Atractapis wilsoni ($\times 2$).

sutures; in contact with internasal, postnasal (slightly), upper præocular, supraocular and frontal. *Frontal*.—Touches six shields. The fronto-supraocular sutures rather the longest. *Nasals*.—Longer than the præoculars; in contact with the 1st and 2nd supralabial and both præoculars. *Nostril* peculiar, with a small scale inferiorly inside the aperture: a suture runs from the nostril to the back of the 2nd supralabial. *Præoculars*.—Two, elongate, and sub-equal.* *Postoculars*.—Three decreasing in size from above downwards. *Temporals*.—Two superposed anteriorly, the lower larger. *Supralabials*.—7, the 3rd and 4th touching the eye; 3rd, 4th and 5th highest, the 7th longest. *Infralabials*.—5. The 5th largest, quite separated from the labial margin by small marginal scales, the anterior of which also partially separates the 4th from the tip; the 4th and 5th are very broad. *Sublingual* in contact with 5 infralabials. Eye with round pupil.

A well developed grooved fang. *Colour*.—Uniform tarry-black above, plumbeous-black on the belly.

I have much pleasure in conferring Lieutenant Wilson's name upon this species.

* On the right side in one specimen a suture passes from the eye only partially dividing the 3rd labial, and suggesting that the lower præocular is derived from a division of this shield.